

REMARKS

Claims 1, 2, 4-9, and 11-16 will be pending upon entry of the present amendment. Claims 11, 13 and 15 are amended. No new matter has been added to the specification by the present amendment.

Applicant thanks the Examiner for indicating the allowability of claims 4-9.

Amendments to claims 11, 13 and 15 are made to more clearly define their respective scopes, and are fully supported by the specification.

Summary of Rejections Under 35 U.S.C. §§ 102 and 103

Claims 11-16 are rejected under 35 U.S.C. § 102(b) as being anticipated by Valentin (U.S. Patent 6,406,271), and claims 1 and 2 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Valentin.

In the discussion that follows, when a specific passage of Valentin is cited, it will be indicated by a column number separated from a line number by a colon, e.g., 4:22, indicating column 4, line 22.

Applicant's Response to Rejections of Claims

Claim 11, as currently presented, recites, in part, "means for equalizing fluid pressure in pairs of the plurality of cylinders on opposite sides of the circular arrangement, beginning only after the cylinder ports of each pair of cylinders begin to cross top-dead-center and bottom-dead-center of rotation, respectively." Valentin fails to anticipate this limitation. Referring to Valentin's Figure 10, it can be seen that the compensating ports 75 and 76 lie in the same annular path 78 as the main ports 73 and 74. Thus, as the bore channels 17 (shown in Figure 9) rotate around the valve plate 16 along the path 78, they will contact the compensating ports 75, 76 before they begin to cross top- or bottom-dead-center (I-I in Valentin's Figure 10), and so Valentin's pressure compensation will also begin to occur before the bore channels begin to cross top- or bottom-dead-center, rather than after, as recited in claim 11. Accordingly, Valentin fails to anticipate each element of claim 11, which is therefore allowable.

Claim 13 recites, in part, "placing a first cylinder port, after the first cylinder port begins to cross top-dead-center of rotation, in fluid communication with a second cylinder port,

after the second cylinder port begins to cross bottom-dead-center of rotation.” Valentin fails to anticipate this limitation. Applicant understands the verb *place* to refer to an action that is performed or completed at a particular instant of time, rather than an ongoing action. Thus, when opposing pairs of Valentin’s bore channels 17 first contact the respective compensation ports 75, 76, at that moment they are *placed* in fluid communication, which occurs before either bore channel begins to cross dead center. Thereafter, for as long as they remain in fluid communication, one would not say that they are repeatedly or continually placed in fluid communication, but instead that they are simply in fluid communication. Thus, the act of placing them in fluid communication does not occur after they begin to cross dead center, as recited in claim 13, but instead occurs before they begin to cross dead center. Accordingly, claim 13 is allowable over Valentin.

Claim 1 recites, in part, “a first pressure relief port located in the valve plate substantially outside of the annular region at a top-dead-center position; and a second pressure relief port located in the valve plate substantially outside of the annular region at a bottom-dead-center position ....” Valentin fails to teach or suggest these limitations of claim 1. In rejecting claim 1 under § 103, the Examiner acknowledges that Valentin does not explicitly disclose that the first and second pressure relief ports are located substantially outside the annular region, but argues that this claim limitation constitutes a mere rearrangement of parts and, absent unexpected results, fails to patentably distinguish claim 1 over Valentin (first complete paragraph of page 4). Applicant respectfully disagrees.

Valentin’s parts cannot be rearranged to conform to the language of claim 1 without rendering Valentin unsuitable for its intended purpose. *See* MPEP § 2143.01 V (“THE PROPOSED MODIFICATION CANNOT RENDER THE PRIOR ART UNSATISFACTORY FOR ITS INTENDED PURPOSE” (capitals in the original)). Referring to Valentin’s valve plate 16 shown in Figure 10, it can be seen that the compensating ports 75, 76 are located within an annular region defined by the main ports 73, 74. As Valentin’s bore channels 17 (see Figure 9) rotate across the valve plate, they contact the compensating ports in pairs as they approach top- and bottom-dead-center (TDC, BDC), equalizing the pressure in the piston bores at that position, and resulting in advantages discussed beginning at 13:1. By measuring the radial dimensions of the annular regions defined, respectively, by the bore channels of Figure 9 and the main ports of

Figure 10, it can be determined that, at least as disclosed in the figures, they are substantially identical, which is common in the art. Accordingly, if the compensating ports were rearranged to a location “substantially outside the annular region,” as recited in claim 1, the bore channels would make little or no contact with the compensating ports, which would render the compensating ports unsuitable for their intended purpose. Claim 1 is therefore allowable over Valentin on this basis alone.

As to the matter of unexpected results, it is not the law that an applicant must show such in order to obtain a patent on a novel and non-obvious structure. While a showing of unexpected results may be presented as evidence of nonobviousness, its absence cannot be used as evidence of obviousness. *See* MPEP § 716.01(a) ([t]he lack of objective evidence of nonobviousness does not weigh in favor of obviousness). In the present case, because Valentin cannot support a *prima facie* case of obviousness, additional evidence of nonobviousness is not required, and claim 1 is allowable.

### Conclusion

Overall, the cited references do not singly, or in any motivated combination, teach or suggest the claimed features of the embodiments recited in independent claims 1, 4, 11, or 13, and thus such claims are allowable. Applicant’s decision not to argue the allowability of each of the dependent claims is not to be construed as an admission that such claims would not be allowable but for their dependence on allowable base claims, and Applicant reserves the right to present such arguments as may become necessary in the future. If the undersigned representative has overlooked a relevant teaching in any of the references, the Examiner is requested to point out specifically where such teaching may be found.

In light of the above amendments and remarks, Applicant respectfully submits that all pending claims are allowable, and therefore requests that the Examiner reconsider this application and timely allow all pending claims. Examiner Hamo is encouraged to contact Mr. Bennett by telephone at (206) 694-4848 to discuss the above and any other distinctions between the claims and the applied references, and to address any informalities that may remain unresolved.

Application No. 10/820,074  
Reply to Office Action dated September 4, 2007

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

Respectfully submitted,

SEED Intellectual Property Law Group PLLC

A handwritten signature in black ink, appearing to read 'H. Bennett II', is written over a horizontal line.

Harold H. Bennett II  
Registration No. 52,404

HHB:cm

701 Fifth Avenue, Suite 5400  
Seattle, Washington 98104  
Phone: (206) 622-4900  
Fax: (206) 682-6031

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